# **Special Issue**

## Hydrodynamics in Pressurized Pipe Systems

### Message from the Guest Editor

The field of hydrodynamics, the study of fluids in motion, presents a vast array of challenges, spanning scientific and engineering realms. Among these challenges, the task of understanding and predicting transient flow phenomena, especially in pipe systems, stands out, Transient pipe flow poses unique challenges due to its dynamic nature, where the fluid flow conditions rapidly change in response to factors like valve operations, pump start-ups or shutdowns, and sudden changes in flow rate or pressure. Water hammer, a key concern in transient flow, can lead to pressure surges that can potentially damage the system, thus necessitating sophisticated modeling techniques and control strategies for mitigation. Beyond the transient flow challenges, hydrodynamic research grapples with broader issues such as optimizing fluid transport efficiency, reducing energy consumption, and mitigating environmental impacts. Understanding turbulent flow behavior, for instance, is crucial across various industries, [...]For further reading, please follow the link to the Special Issue Website at:

https://www.mdpi.com/journal/water/special\_issues/4T T8544L11

### **Guest Editor**

#### Dr. Kamil Urbanowicz

Department of Mechanical Engineering and Mechatronics, West Pomeranian University of Technology Szczecin, Piastów 19, 70-310 Szczecin, Poland

### Deadline for manuscript submissions

31 May 2025



an Open Access Journal by MDPI

Impact Factor 3.0 CiteScore 5.8



mdpi.com/si/202164

Water MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 water@mdpi.com

#### mdpi.com/journal/

water





# Water

an Open Access Journal by MDPI

Impact Factor 3.0 CiteScore 5.8



water



# About the Journal

## Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

### Editor-in-Chief

### Dr. Jean-Luc PROBST

Centre de Recherche sur la Biodiversité l'Environnement (CRBE) UMR CNRS/UPS/INPT/IRD, Centre National de la Recherche Scientifique (CNRS), University of Toulouse, Campus ENSAT, Auzeville Tolosane, Toulouse, France

## Author Benefits

### **Open Access:**

free for readers, with article processing charges (APC) paid by authors or their institutions.

### **High Visibility:**

indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, PubAg, AGRIS, CAPlus / SciFinder, Inspec, and other databases.

### Journal Rank:

JCR - Q2 (Water Resources) / CiteScore - Q1 (Water Science and Technology)